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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,877	03/23/2005	Peter R Chang	0100024/0532135	8753

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FROST BROWN TODD, LLC
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CINCINNATI, OH 45202

EXAMINER

CLARK, AMY LYNN

ART UNIT	PAPER NUMBER
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1655

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/528,877

Applicant(s)

CHANG ET AL.

Examiner

Amy L. Clark

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-29 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-18, drawn to a method of producing an isoquercitrin-enriched composition, said method comprising:
providing a solution having rutin suspended therein at conditions suitable for enzyme incubation;
adding an enzyme preparation comprising naringinase to the solution;
maintaining the conditions of the solution suitable for enzyme incubation during an incubation period;
terminating the incubation period by changing the conditions of the solution to conditions unsuitable for said enzyme incubation, said solution at this point being an isoquercitrin-enriched composition;
wherein the proportion of isoquercitrin in the composition is controlled by adjusting the duration of the incubation period.

Group II, claim(s) 19-21, drawn to an isoquercitrin enriched composition manufactured by the method of Claim 1.

Group III, claim(s) 22 and 23, drawn to an isoquercitrin-enriched composition having bioactive properties including at least one of angiotensin-converting enzyme inhibitory, anti-inflammatory, anti-tumor, anti-viral, anti-oxidative, free radical scavenging, cancer preventative, cardioprotective, proteinase-inhibitory, protein kinase C inhibitory, tyrosine protein kinase inhibitory, topoisomerase II inhibitory and protein-cleaving enzyme inhibitory properties.

Group IV, claim(s) 24-28, drawn to a process for preparing a rutin enriched composition from biomass containing rutin, the process comprising: performing a flavonoid extraction process on the biomass using an aqueous solution comprising water or alcohol;
filtering the solution to produce an extract solution;
allowing the extract solution to stand such that a precipitate forms;
collecting and drying the precipitate to form the rutin enriched composition.

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Group V, claim(s) 29, drawn to an isoquercitrin enriched composition manufactured by a method comprising:

providing a solution having rutin suspended therein at conditions suitable for enzyme incubation;

adding an enzyme preparation comprising naringinase to the solution;

maintaining the conditions of the solution suitable for enzyme incubation during an incubation period; terminating the incubation period by changing the conditions of the solution to conditions unsuitable for said enzyme incubation, said solution at this point being an isoquercitrin-enriched composition;

wherein the proportion of isoquercitrin in the composition is controlled by adjusting the duration of the incubation period; and wherein the rutin is derived by the process of Claim 24.

The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Claim 22, at least, is anticipated by or obvious over Bean (A, US 4,132,782 A). Bean teaches a topical ointment containing 1-5% extract containing hydroxycinnamic acids, anthocyanin, leucoanthocyanin, various flavonals, beta-carotene and its monoepoxide, cryptoxanthin, violaxanthin, gallic acid, marigin, meratin, asozane, isoquercetin and isoquercitrin. Consequently, the special technical feature which links the claims does not provide a contribution over the prior art, so unity of the invention is lacking.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Group I:

Specie A:

(i) Elect either the method step of claim 4 or the method step of claim 5.

Group III:

Specie A:

(i) Elect at least one bioactive property from claim 22.

(ii) Elect at least one condition/disease that the bioactive properties of the composition are used in the prevention of from claim 23 (please make sure that the condition/disease elected from claim 23.

Group IV:

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Specie A:

- (i) Elect either water or alcohol from claim 24.
- (ii) Elect at least one biomass from claim 28.

Group V:

Specie A:

- (i) Elect either water or alcohol from claim 24.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Group I:

- Specie A: -If the method of step 4 is elected, claims 1-4 and 6-18.
-If the method of step 5 is elected, claims 1-3 and 5-18.

Group III:

Specie A:

- (i) Claims 22 and 23.
- (ii) Claim 23.

Group IV:

Specie A:

- (i) Claims 28-24.
- (ii) Claim 28.

Group V:

Specie A:

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(i) Claim 29.

The following claim(s) are generic: Claims 1, 6, 10, 12, 14, 15, 17, 19, 22, 24 and 29.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

There is no common structural element shared by all the alternatives.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy L. Clark whose telephone number is (571) 272-1310. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Amy L. Clark
January 8, 2007

Michele C. Flood
MICHELE FLOOD
PRIMARY EXAMINER